DOCUMENT RESUME

ED 414 711 EC 306 083

TITLE	Hard of Hearing and Deaf Students: A Resource Guide To Support Classroom Teachers.
INSTITUTION	British Columbia Dept. of Education, Skills, and Training, Victoria. Special Education Branch.
REPORT NO	RB0033
ISBN	ISBN-0-7726-2033-4
PUB DATE	1994-01-00
NOTE	37p.; Previous issued under title: The Hearing Impaired Student in the Regular Classroom, 1981.
AVAILABLE FROM	Learning Resources Branch, 878 Viewfield Road, Victoria, British Columbia V8V 1X4, Canada.
PUB TYPE	Guides - Non-Classroom (055)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Classroom Environment; *Communication Aids (for Disabled); *Deafness; Educational Cooperation; *Educational Planning; Elementary Secondary Education; Foreign Countries; Hearing Aids; *Inclusive Schools; Interpersonal Communication; Interviews; Parent Teacher Conferences; *Partial Hearing; Questioning Techniques; *Student Needs; Teaching Methods
IDENTIFIERS	*Academic Accommodations (Disabilities); British Columbia

ABSTRACT

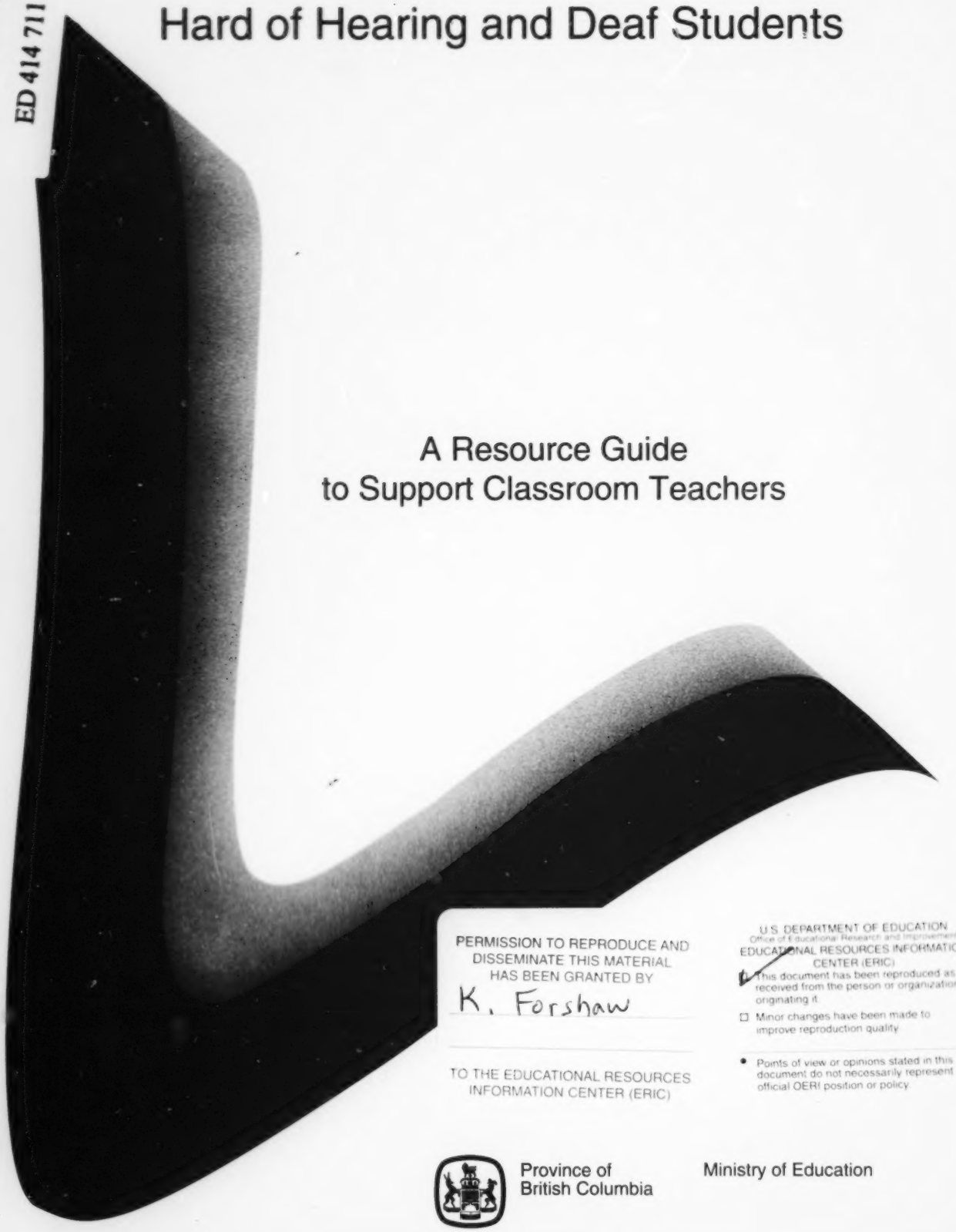
This resource guide for classroom teachers provides an overview of the needs of students who are deaf or hard of hearing. Topics include: (1) range of hearing loss, educational implications, and sample audiograms; (2) preparing to teach students who are hard of hearing or deaf; (3) needs of learners who are hard of hearing or deaf; (4) sample questions to ask parents or guardians during the first interview; (5) sample questions to ask teachers of the deaf and hard of hearing; (6) sample questions for the first educational team meeting; (7) student interviews and sample questions for the interviews; (8) tips for classroom adaptation; (9) tips for communicating with a student with hearing impairments in one-to-one situations, in groups, and through an interpreter; (10) equipment needs of students who are deaf or hard of hearing; (11) solutions to problems encountered with personal hearing aids and FM systems; and (12) teacher tips for dealing with hearing aids and FM systems. A glossary of relevant selected vocabulary is provided. Forms for notetaking are included throughout the guide. Student tip sheets provide: a sample assignment guide, a sample reflective guide for self-assessment, and a sample summary guide for group activities. (CR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

RB0033

ED 414 711

Hard of Hearing and Deaf Students



A Resource Guide to Support Classroom Teachers

EC 306033

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

K. Forshaw

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- ☑ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.
- • Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Province of British Columbia

Ministry of Education

BEST COPY AVAILABLE

Hard of Hearing and Deaf Students:

A Resource Guide to Support Classroom Teachers

Ministry of Education

Special Education Branch
Parliament Buildings
Victoria, British Columbia
V8V 1X4

Published January 1994

Canadian Cataloguing in Publication Data
Main entry under title:
Hard of hearing and deaf students

Previously issued under title: The hearing impaired student in the regular classroom, 1981.
Includes bibliographical references: p.
ISBN 0-7726-2033-4

1. Deaf - Education - British Columbia. I. British Columbia. Special Education. II. Title: Hearing impaired student in the regular classsroom.

HV2579.B7H37 1994 371.91'23 C94-960053-9

ACKNOWLEDGEMENTS

The **Special Education Branch,** Ministry of Education, gratefully acknowledges the following people for the planning and assistance given to the development of this teachers' resource guide:

Martha Anderson, School District No. 7 (Nelson)

Suzanne Bailey, Special Education Branch, Victoria

Jill Bates-Smith, School District No. 61 (Victoria)

Donna Barner, School District No. 32 (Hope)

Judy Cameron, School District No. 7 (Nelson)

Margaret Cooper, Languages and Multicultural Programs Branch, Victoria

Karin Conboy, School District No. 35 (Langley)

Art Corner, Special Education Branch, Victoria

Leah Fowler, Writer, Galiano

Jill Gift, School District No. 41 (Burnaby)

Sheila Gossan, School District No. 34 (Abbotsford)

Diane Huet, Languages and Multicultural Programs Branch, Victoria

Randy Lee, School District No. 32 (Hope)

Monica McGarrigle, Special Education Branch, Victoria

Sue Tennant, School District No. 23 (Kelowna)

Donna Van Paridon, School District No. 35 (Langley)

To obtain additional copies:

Learning Resources Branch
878 Viewfield Road
Victoria, British Columbia
V8V 1X4

Facsimile: 387-1527

Contents

I Introduction 1

II Range of Hearing Loss and Educational Implications 2
- Sample Audiograms 4

III Preparing to Teach Students who are Hard of Hearing or Deaf 5
- Talk to Qualified Teachers of the Deaf and Hard of Hearing 5
- The First Interview 5
- Needs of Learners who are Hard of Hearing or Deaf 6
- Sample Questions to Ask Parent(s)/Guardian(s) During First Interview 8
- Sample Note Page for a First Interview with Parent(s)/Guardian(s) 9
- Sample Questions to Ask Teachers of the Deaf 10
- Sample Note Page from Consultation with Teacher of the Deaf 11
- Sample Questions for the First Educational Team Meeting 12
- Sample Note Page for First Educational Team Meeting 13
- Sample of Alternative Note Page for First Educational Team Meeting 14

IV Student Interviews 15
- Sample Questions to ask Student 15

V Tip Sheet for Classroom Adaptation 16

VI Communication Tip Sheets
- One-to-One 17
- In Groups 17
- Through an Interpreter 18
- Hints for Note Takers 18

VII Student Tip Sheets
- Sample Assignment Guide 19
- Sample Reflective Guide for Self-Assessment 20
- Sample Summary Guide for Group Activities 21

VIII Equipment Needs of Students Who are Deaf or Hard of Hearing 22

IX Trouble Shooting Tip Sheets for Equipment
- Personal Hearing Aids 23
- FM Systems 24
- Teacher Tips for Hearing Aids/FM Systems 25

X Selected Vocabulary 26

XI Resources 29

Introduction

If you are a classroom teacher who for the first time is about to have a student who is hard of hearing or deaf, this guide can be helpful. Your new student is likely to be as excited and anxious as you are, and that human energy can be used for remarkable learning relationships in the classroom. Initial feelings of concern, anxiety, frustration, or uncertainty often accompany the news that you will be teaching a student whose particular learning needs are unfamiliar to you. However, both information and assistance are available to you in teaching students who are deaf or hard of hearing. Almost always, a student will come to you with a support system in place and if not, this guide can direct you to others who will form an educational team to work with you and your student.

You can do a number of practical everyday things to help you meet your particular student's learning needs, but remember it is your teaching knowledge and experience, your guidance and encouragement that the pupil with a hearing loss needs most from you.

This guide has been developed to provide you with basic information to ensure the student's success in your classroom. Its sections represent the areas of importance and concern identified by experienced classroom teachers and specialist teachers of the deaf and hard of hearing. Preparing for students with hearing loss requires:

- getting ready to talk with parents and the student in the first interview,
- learning where to get help when you need it,
- knowing how best to communicate with your student,
- working with others in the support team, which may include interpreters and assistants.

This preparation, positive planning and cooperation in the first few days builds the groundwork for effective teaching and learning. Building on this strong relationship with your students helps you to optimize the physical and emotional environment and curriculum for your individual student. Establishing this 'care-full' network with your new student at the beginning will lead naturally into the educational work of initial assessment, thoughtful planning, teaching, and fostering the student's development in skills, knowledge, communication, responsibility, self-reliance, self-esteem, and lifelong learning.

Often-asked questions, information and communication, and teaching strategies are included to help broaden your awareness and experience of the language and world of your student who is hard of hearing or deaf.

Range of Hearing Loss and Educational Implications

You will be better able to help your student's learning process if you understand the nature and degree of the hearing loss and what the educational implications will be for your work together in the classroom.

'Hearing impairment' is a general term often used by professionals to describe hearing loss. In an audiological assessment, hearing loss is measured in decibels (dB),across a range of frequencies from low sounds to higher pitched sounds. You may wish to discuss the audiological information and the resulting educational, social and emotional implications with a qualified teacher of the deaf and hard of hearing. Having similar audiograms does not always mean students' language skills and learning needs are the same. For example, you may find your student has difficulties with both spoken or signed, and written communication. Vocabulary development, idiomatic and grammatical English, or the understanding of abstract ideas are examples of areas which may be delayed due to hearing loss. A significant hearing loss may also lead to a need for specific strategies to address social skills development. Difficulty in initiating and maintaining friendships or evidence of low self esteem are examples of the effect of the isolation experienced by many students who are deaf or hard of hearing.

Your own assessment of the student's learning needs and abilities, along with the two assessments, by an audiologist and by a qualified teacher of the deaf and hard of hearing, can assist you and your student in the development of an effective individual educational plan. When you first meet with the student and her or his parents or guardians ask for these assessments to help you set and foster realistic, optimal goals. If there has not been an assessment done, this is a first step to arrange in consultation with your school team.

Most students with hearing loss in regular classrooms have enough residual hearing to process language through hearing with appropriate amplification. Knowing exactly what kind of assistance is required for your student in a variety of classroom situations helps the student to benefit from these experiences.

Hearing loss has been organized traditionally into five categories which consider the range of sounds used in speech; it may be helpful for you to know which category best describes your particular student:

1. **Normal hearing**: Students can detect all speech sounds even at a soft conversation level. The student's hearing would be plotted in the -10 to +15 decibel range on an audiogram.

2. **Minimal loss:** Students may have difficulty hearing faint or distant speech. Peer conversation and teacher instructions presented too rapidly, particularly in noisy classrooms, are likely to result in missed information. Loss is between 16 to 25 decibels.

3. **Mild**: Student may miss up to 50% of class discussions especially if voices are soft or the environment is noisy. Students will require the use of a hearing aid or personal FM system. Loss is between 26 to 40 decibels .

4. **Moderate**: Classroom conversation from 3 to 5 feet away can be understood if the structure and vocabulary is controlled. Hearing aids and/or personal FM systems are essential. Specific attention will need to be directed to language development, reading and written language. Loss is between 4l to 55 decibels.

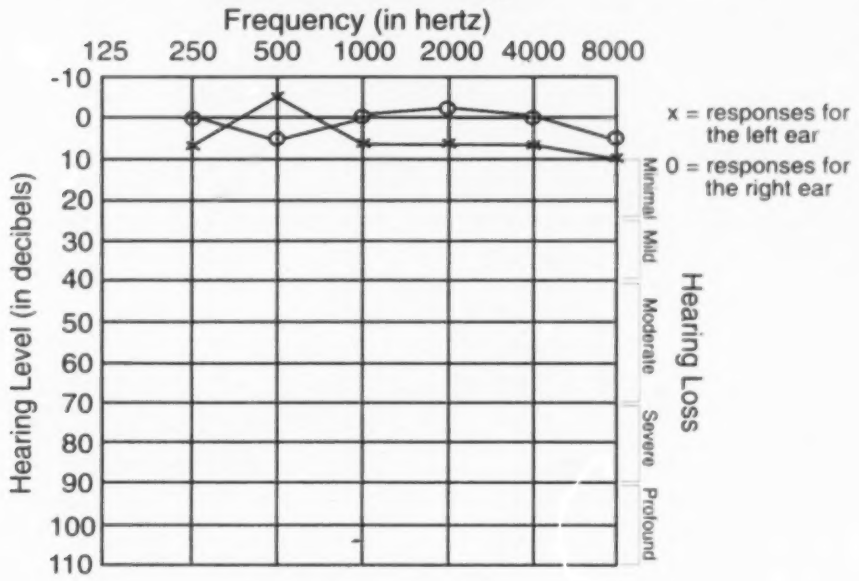
3. **Moderate to severe:** Without amplification students with this degree of loss can miss up to 100% of speech information. Full time use of amplification is essential. They will probably require additional help in all language based academic subjects. Loss is between 56 to 70 decibels.

4. **Severe**: Students can only hear loud noises at close distances. They require individual hearing aids, intensive auditory training and specialized instructional techniques in reading, language, and speech development. Loss is between 71 to 90 decibels.

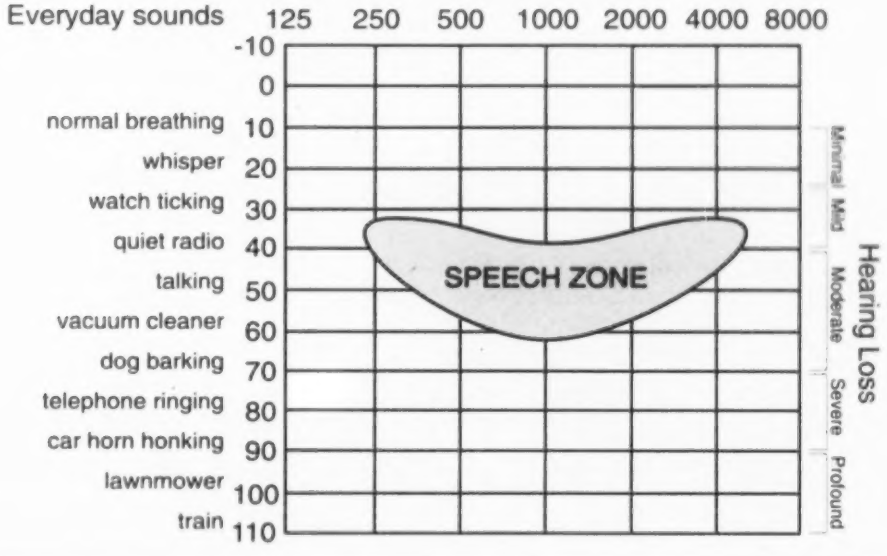
5. **Profound**: For all practical purposes these students rely on vision rather than hearing for processing information. If you have a student in this category, he or she is usually a candidate for signing systems and specialized instructional techniques in reading, speech, and language development. A loss of 91 decibels or more is described as profound.

It is also useful to remember that sometimes loss of hearing can be only at high or low frequencies. This can interfere with the ability to hear specific speech sounds. Also, hearing can fluctuate depending on the student's state of health or upon differences in the environment. These sample audiograms may help in further understanding your student's loss.

Hearing thresholds of a person with hearing in the normal range



Speech sounds and some environmental sounds



Preparing to Teach Students who are Hard of Hearing or Deaf

The student with a hearing loss is a learner with the same needs and aspirations as others in the classroom. The goals of the Kindergarten to Grade 12 curriculum are the building blocks from which you, in consultation with the education team, will begin to develop the student's individual education plan (I.E.P.). Planning for the student with a hearing loss incorporates the intellectual, personal/ social, and career goals of all learners and will also include objectives relating specifically to the student's hearing loss. These may include development of:

- language
- auditory skills
- speech
- sign language as required
- speech reading

Talk to Teachers Trained in the Education of Deaf and Hard of Hearing Students

Teachers who have had special training in the education of students who are deaf and hard of hearing form a part of your support network. You can expect them to answer your first questions, help you identify questions you need to ask the student and parents or guardians, and give immediate, practical classroom tips which can assist both you and your new student. Ongoing support to both you and your student is provided by these specialists. Ask your principal to identify key resource people in your district, or contact one of the resources listed in this guide.

The First Interviews

As with all good working relationships, the first time you meet is often the most important. Lasting impressions are made so it is useful to prepare for this meeting and arrange the most comfortable space and time possible for all concerned. A warm welcome and invitation to work together will quickly set your student and yourself at ease and you can quickly get to the heart of what your work can be. As with all of your students you will wish to find out about your student's interests, likes and dislikes. You will also want to know about the hearing loss. On the following page you will find a list of some of the needs of learners who are hard of hearing or deaf. Sample questions have been provided to assist in your planning.

Needs of Learners who are Hard of Hearing or Deaf

To be made welcome and to belong where successful social relationships can occur. Smiled at, introduced, given time to talk and share personal information, find other people with common interests, invited to extra-curricular activities.

To expand the ability to communicate with others. Encouraged and actively taught communication skills or questioning, listening, speaking, reporting, reading, writing for all sorts of occasions.

To be challenged to take risks and grow. Lots of praise, encouragement, high personal-interest work.

To have opportunities for experiential and incidental learning. First hand experience (labs, workshops, dramatizations, projects) field trips, team projects, group or paired activities.

To have as much visual access to information as possible. Board notes, handouts, glossaries, course books, multi-media materials, closed captioning, hands-on research, other students' notes, pictures.

To have assistive listening devices, and appropriate technology, made available. FM systems, phone amplifiers, silent overhead projectors, closed caption decoders.

To have a classroom which provides the optimum listening environment. Low general noise level, not beside a gymnasium or band room.

To take responsibility for learning (help plan, produce, assess). Be made aware of strengths, learning styles, interests, and goals for growth and improvement; encouraged to keep a portfolio of work in progress; opportunities for periodic assessment and new goals.

To have optimum lighting situations. Faces of peers and teacher need to be clearly lit for speech reading.

To have people speak clearly and normally and directly with them.

To work with people who understand the educational implications of hearing loss. Positive inclusion of information about people with hearing loss. (Books, films of positive role models, artists, writers, scientists, teachers).

To have people ask questions and expect full participation in the classroom . Teach questioning skills, share class work equitably.

To have opportunities to work cooperatively in groups. To extend communication skills (paraphrasing, reporting, summarizing) and experiences.

Notes

Sample Questions to Ask Parent(s)/Guardian(s) During First Interview

- Would you tell me about your child's hearing loss and what you think it might mean in my classroom?
- Could we talk about how you communicate with your child at home? Are there any particular language difficulties I need to be aware of? What is the best way for me to get his/her attention in a group?
- What reports about your child would you feel are important for me to have? (Audiograms, assessments, recommendations, etc.)
- Does your child need any special equipment? (Does your child know how to use it?)
- What are some strategies you have found useful that I can use if your child does not understand me?
- There likely will be questions about the hearing loss from the other students in the class: Have you suggestions for me about what might be said, and how it should be presented?
- Are there any other people working with your child that I should know about?
- Are there any other questions you would like to ask me?

Sample Note Page for a First Interview with Parent(s)/Guardian(s)

Student's Name: Date:

Home Address:

Phone Numbers: Home: Work:

Important People: (family, friends, others on educational team)

Description of Hearing loss:

Student's Interest, Hobbies, Strengths:

Concerns, Questions:

Initial Short-Range Goals:

Long -Range Goals:

Other information/Comments:

Sample Questions to Ask Teachers of the Deaf and Hard of Hearing

- How much hearing does the student have?
- What are the implications for the classroom?
- What can I do if I do not understand the student's communication?
- What can I do if the student is not understanding me?
- Do I need to learn sign language?
- Does the student need an interpreter or assistant? What is the role and responsibility of the assistant or interpreter? What is my role with them?
- Is there any equipment the student needs for my class? What is my responsibility in terms of maintaining the equipment?
- Should they wear their hearing aid/FM all the time? Should they wear it outside at recess or lunch?
- Should I be assisting with correct pronunciation? How many times should I correct a student's error? Are there times I shouldn't correct?
- How do I establish a relationship without talking? Is it okay to use pencil and paper to communicate?
- How can I help the student to ask questions when they are needed?
- How can a student with hearing loss be encouraged to participate more actively in group projects and discussions?
- How can I show films or videos effectively?
- What are the situations in the class that might present difficulty for the student?
- How can I allow for the participation of the student in the incidental learning that happens in informal ways in a classroom?
- What other questions should I be asking or information do I need?
- How often are you able to come to my class and what kinds of assistance are you able to give me?
- Are there references or resources you could suggest that could be helpful?

Sample Note Page from Consultation with Teacher of the Deaf and Hard of Hearing

Student's Name: Date:

Description of Hearing Loss:

Information about Student's Specific Learning Needs:

Equipment Needs and Functioning:

Most Effective Mode of Communication:

Description of Language Skills and Goals:

Classroom Strategies Effective for this Student:

Questions/Concerns:

Sample Questions For the First Educational Team Meeting

- What speech sounds can the student hear? How intelligible is the student's speech?
- What are the student's skills and abilities? Are there any particular strengths or weaknesses we need to be aware of?
- What strategies will we use to assess the student's performance and progress?
- Should I be using alternative classroom strategies and evaluation tools?
- How many times should we correct the student when he/she mispronounces a word?
- Who else is involved with the student's work and how do we collaborate?
- Will I have an assistant and/or interpreter?
- Are there particular strategies useful for dealing with discipline problems?
- How can we best communicate with this student?
- Can I talk to previous teachers of the student?
- Do I need to make any special preparation before a class?
- What is the best way of working with the student and her/his parents?
- What do I tell the other students in the class?
- What is the best way to introduce/alert the student's needs to the support personnel (general office, cafeteria, gym, hallways, etc.), volunteers, and other members of the school community?
- What kinds of things do I need to watch for and be sensitive to?
- What is a realistic, positive educational plan for this student?
- How can we get the equipment the student needs and how does it work? Who will teach me how to use it and what do I do if it's broken?
- Where can I get assistance if required?
- What else do I need to know to work effectively with this student?

Sample Note Page for First Educational Team Meeting

Student's Name: Date:

Description of hearing ability:

Equipment Needed:

Strengths/ Interests:

Language /Academic skills:

Learning Needs:

Strategies most effective:

Key People Who Can Help:

Materials That May Be Useful:

Specific Concerns or Recommendations:

Reminders:

Questions:

Sample of Alternative Note Page for First Educational Team Meeting

Date

Strengths/Interests

Learning Needs

Key People

Student

Teaching Strategies

Questions

Language/Academic Skills

Resources

Student Interviews

You may find your student who is hard of hearing or deaf needs opportunities to respond to direct questions or to ask for clarification in a quiet welcoming environment. Questions focusing on social needs and self esteem are particularly important due to the very nature of any degree of hearing loss. As hearing loss does impede communication you need to be alert to both your student's understanding of spoken language, and reading of body language, in social settings. Misunderstanding can result in difficulties interacting with peers or the student feeling a sense of frustration and isolation. All students need a sense of belonging. Your student who is hard of hearing or deaf may need a little additional support to build that social network.

Sample Questions

- Who are you playing with/forming friendships with?
- Are you enjoying lunch/recess breaks? Are you aware of the kinds of things you might do at lunch time/recess? (clubs, sports, games, etc.) Do you know how to get involved in these activities? What can I do to help you participate?
- Do you feel at times that you need someone to talk to? Do you know who you can ask for help?
- How well do you think the buddy system is working?
- Are there any things I need to know about your hearing aids or your auditory training equipment?
- If you could change some things about the classroom/school what would they be?
- Are you comfortable working with the interpreter/teaching assistant?
- Do you feel comfortable letting me know when you need help? Is there a way we can be sure I know you need help?
- Let us review what we have done (review individual education plan).
- What do you feel you most need to work on?
- Are there any questions you would like to ask or anything you think I should know to help you learn better?

Tip Sheet for Classroom Adaptation

- Students with hearing loss need to see your face all the time to speechread and get meaning clues. Your non-verbal communication is crucial. Use your smiles to encourage, invite, and include. Optimum natural lighting is important. Try not to stand in front of lights or windows as they cause your face to go in shadow.
- Speaking naturally is the most help to your student with hearing loss. Talking very loudly or over-enunciating does not help your student, in fact it makes it harder for him/her.
- You will need to discuss the best seating arrangement in the room with the student. Consideration must be given to the best place for receiving maximum information within the normal flow of classroom activities.
- Vocabulary lists with definitions of new terms and concepts to be used during the day help the student to develop a personal dictionary of words learned.
- An outline of the class agenda--just 3 or 4 points jotted on the board really helps the student get a sense of purpose, direction, and timing for short term work which fits into the longer range planning.
- Course or grade outline of the topics and kind of work to be done may be useful.
- Provide an outline of a typical school day with the student's own timetable. Include room numbers and a list of people who can assist (e.g. counsellor, school secretary).
- If there is class discussion or group work, it is useful to summarize on the board or have the groups report their work on large paper that can be read as a group.
- Use of overheads, visuals, handouts and outlines may be helpful.
- Other students in the class may be asked to volunteer as a buddy to take notes and help you watch for the need for more clarification.

Communication Tip Sheet

One - to - One:

- Get the student's attention with a soft touch or visual sign and keep eye contact.
- Speak naturally without overemphasizing. Short sentences are best.
- Keep mouth visible. (Don't turn away, cover your mouth, etc.)
- Facilitate speech reading by not standing in front of windows or other light sources.
- Use the words "I" and "you" and keep direct eye contact, even when using an interpreter. Remember you are communicating directly with the student.
- Use gestures, body language, and facial expressions to support communication.
- Use open-ended questions that invite interaction and wait. This prevents the student from nodding without really comprehending.
- Check comprehension of instructions or content of lessons. A direct question such as ' tell me what you need to do ' is better than 'do you understand'.
- Repeat, and then rephrase if you have problems being understood. Use pencil and paper if necessary since some combinations of consonants and vowels are difficult to speech read. Getting the message across is most important.

In Groups:

- Identify the speaker.
- Identify the topic, repeat questions asked, and summarize whenever possible.
- Insist on one speaker at a time and reduced general noise.
- Provide new vocabulary ahead of time or write on board or on chart paper.
- Make sure the student who is hard of hearing or deaf gets all the vital information. You may need to repeat answers given by students seated behind the student with a hearing loss.
- Seat the student where he/she can see the speaker and classmates, and receive the clearest possible audio signal (round table or semi-circle arrangements are best). Usually the student will know where to sit.

- Remain in one position as much as possible when speaking. Walking up and down in front of the class makes speech reading difficult.
- Invite full participation from the student who is hard of hearing or deaf and ensure that turn-taking occurs.
- Interpreters (oral and signing) can assist in group situations and will need a bit more time to finish transferring the speaker's message.
- Use a note taker where possible to record information. This allows the student to fully attend to the conversation. (It's impossible to speech read and take notes at the same time.)

Through an Interpreter:

- Speak directly to the student who is hard of hearing or deaf, not the interpreter. The interpreter is not part of the conversation and relays everything you say.
- Allow some extra time for the interpreter to transfer your complete message and for the student to form thoughtful questions and responses.
- Speak clearly in normal tones at a well-paced rate and volume.
- Provide good lighting for the student and interpreter, especially during slides, films, videos. An outline of main points ahead of time is helpful.
- In classes, outlines of the materials to be studied, new vocabulary, and lots of visual aids assist the student and the interpreter.
- During a normal class day, the interpreter will need regular breaks. The student needs breaks as well, because reading sign is an intensive kind of work.
- It is helpful to spend a few minutes ahead of class with the interpreter to briefly review the topics, agenda, and information.

Hints for Note takers:

- Arriving a few minutes early to talk with the teacher really helps
- Leaving wide margins makes it easy for later notes and questions.
- Each page should be dated and numbered.

- Highlighting the main points helps organize the notes and emphasize topics.
- Ask the speaker to check your notes for accuracy at the end of class.

Student Tip Sheet - Sample Assignment Guide

Class:

Assignment: Due Date:

Topic:

Format and Special Instructions:

Assessment (What the purpose is and the way it will be evaluated):

Value of Assignment (weighting):

Questions I Have:

Materials and Resources I Need to do this Assignment:

Student Tip Sheet - Sample Reflective Guide for Self-Assessment

Student's Name: Subject:

The purpose of this work was: Date:

Next time I would like to:

What I like best about what I did was:

From this work I learned:

The main ideas for me to remember include:

Questions I still have about this assignment are:

The teacher's comments and suggestions are:

Other notes and reminders to myself are:

Student Tip Sheet - Sample Summary Guide for Group Activities

Student's name:

Members in our group:

Our group's task was:

My contribution to the group was:

The main topic of our talk was:

Some of the main ideas were:

Communication skills I practiced during the group were:

Next time I work in a group I would like to:

Questions I still have for our group are:

Strategies we used together as a group include: (circle the relevant ones)

Brainstorming	Note taking	Discussion	Writing	Problem Solving
Interviewing	Listening	Finding Common Goals		Sharing Work

Equipment Needs of Students Who Are Deaf or Hard of Hearing

A number of technical aids are available to assist the student in accessing the curriculum. Consult your teacher of the deaf and hard of hearing or the audiologist in your region to ask what specialized equipment would best meet the needs of your student. For example, overhead projectors and closed caption decoders are items which may be helpful. Adaptations to audio visual equipment which allow for direct input into the student's FM system are also available.

As language and listening are key elements in the daily routine of the classroom, hearing aids in good working condition are a critical factor in the student's success. Some basic information on what the hearing aid can, and cannot do will increase your comfort level.

Hearing Aids

Hearing aids simply amplify all sounds. As a result, not only speech but all background noise is also amplified. The increase in sound does not mean that you can assume the student now has normal hearing. Sound may be distorted. Also, as the distance from the sound source increases, particularly in a noisy environment, it becomes increasingly difficult to distinguish between speech and background sounds. The degree of benefit is also dependent upon the degree of hearing loss. No amount of amplification will help if the loss is so profound that little residual hearing remains in certain frequencies. The information you receive from the audiogram will help you to determine what information your student can gain given optimum listening conditions and appropriately functioning hearing aids.

Hearing aids: will not restore normal hearing
will amplify all sound
must be in excellent working condition
must be worn consistently

Your student with a hearing loss should come to your class with personal hearing aids and he/she may also be provided with an FM system. An FM system, usually referred to as Auditory Training Equipment (ATE) consists of a microphone for your use, and a receiver to be worn by the student. Properly functioning ATE puts your voice directly at the student's ears. Students fitted with FM systems should come to you with a support system in place. That is, an audiologist, a teacher of the deaf or an audiological technician will ensure that you have all of the information you require to use, and troubleshoot the equipment. Ask that they provide you with an in-depth checklist of "what to do if... " for the specific equipment assigned to your student. The information of the following pages is provided as a general checklist.

Personal Hearing Aids

What to do if there is. . .

No sound
- Check that the power is on.
- Turn the switch from T (telephone) to M (microphone).
- Turn up the volume.
- Replace the battery.

Static, intermittent sound, or feedback (loud squeal)
- Clean and check the battery contacts.
- Check for clogged earmolds.
- Check for excess ear wax.
- Check for properly fitting earmolds. *Young children often outgrow their earmolds.
- Turn the volume down.

Weak or distorted sound
- Check for clogged earmolds.
- Turn up the volume controls
- Replace the batteries.

If the hearing aids do not function after trying the above suggestions, inform parent/guardian.

FM Systems

What to do if there is. . .

No sound
- Turn the power switch to FM and MIC.
- Turn up the volume controls.
- Recharge or replace the batteries.

No FM reception (The student is not receiving the teacher's voice.)
- Turn teacher microphone (transmitter) power switch to MIC/AUDIO.
- Check that each microphone and student transmitter have the same frequencies.
- Turn on student receiver.
- Check that cords are properly connected.
- Turn up volume control.
- Recharge or replace batteries.

Weak or distorted sound
- Check for water or wax in the earmold.
- Recharge or replace batteries.
- Turn up both volume controls.
- Check for broken cords.

Static, intermittent sound, or feedback (loud squeal)
- Check the cords for breaks.
- Clean and check the battery contacts.
- Check for clogged earmolds.
- Check for properly fitting earmolds.
- Turn volume down.

A charger that isn't charging
- Check that the charger is plugged in to the wall socket.
- Check that the wall socket is active.
- Check that the teacher microphone and student receiver are turned off and properly placed in the charger.
- Clean charge contacts.

If the FM system does not function after trying the above suggestions, do not let the student wear it. Inform the teacher of the deaf or hard of hearing or contact your audiologist or technician.

Teacher Tips - Hearing Aids/FM Systems

- Speak in a normal tone of voice with the microphone approximately 14 cm from your mouth. Your voice will be amplified, but remember that no hearing aid will allow your student to hear exactly as he would if he/she had no hearing loss.
- A personal hearing aid works best within a 2 to 3 metre radius. Beyond that, other background noise will interfere. It is important to be aware of this range for direct instruction and group activities.
- An FM system will usually transmit for a distance of approximately 45 metres. The clarity of the signal and the amount of information received depend on the student's loss and ability to process the information he or she hears. The student may need to have a clear view of the speaker's mouth to receive all of the information. The gymnasium, or outdoor field trips may be difficult listening environments even though the FM system has an extended range.
- Encourage speakers in assemblies to wear the microphone.
- For in-class discussions pass the transmitter to the speaker or, if working in small groups place it in a central location (e.g. the middle of the table).
- Hearing aids which are broken should not be worn as they add to the student's loss by blocking the ear canal and creating a greater hearing loss.
- Encourage the student to take responsibility for the daily charging of the equipment, as appropriate. Either you, or another adult or older student will need to check that it is in good working order each morning.
- It is necessary to have a ready supply of batteries available. Your student is expected to provide them for his/her personal hearing aids. Batteries for the FM system may be obtained from the hearing clinic.
- Ask your audiological technician or audiologist for a checklist to assist with troubleshooting the equipment. Keeping it close to the area where the system is charged is helpful for other adults working with you.
- Be aware of the procedure for repair of equipment and check to see if there is a loan process while the malfunctioning equipment is out for repair.

Selected Vocabulary

American sign language (ASL) - the native language of most deaf adults in North America. ASL is a distinctive visual-spatial language with its own grammatical rules and syntax, which is not derived from any other written or spoken language.

assistive devices - technical aids for the deaf and hard of hearing

A. T. E. - auditory training equipment (includes transmitter, receiver, and hearing aids) Also referred to as FM systems

audiogram - a graph that provides a picture of the amount of hearing; hearing levels are recorded in decibels (loudness) for each frequency (pitch) tested

auditory discrimination - the ability to perceive and identify individual sounds.

auditory learning(auditory training) - specific attention focused on specific speech or environmental sounds to optimize residual hearing

auditory management - includes all aspects of the student's environment which impacts on maximizing residual hearing

closed-caption decoder - a device which when attached to a TV or a VCR may be set to make the captions appear

closed-captioning - subtitles which enable viewers to read the dialogue of a television program, video, or film

conductive hearing loss - damage or obstruction in the outer or middle ear resulting in reduced conduction of sound to the inner ear. This loss is most commonly caused by ear infection (e.g. otitis media) which in the majority of cases can be cleared by medical treatment.

Deaf community - a separate linguistic and cultural group of deaf individuals who use American Sign Language for communication

deafness - a hearing loss so severe that linguistic information cannot be processed through the ear, with or without a hearing aid

decibel (dB) - a unit of measurement for the intensity of sound

finger spelling - a system of forming the letters of the alphabet and numbers with hand shapes. Finger spelling corresponds to the written alphabet.

free-field system - a wireless microphone, worn by the teacher, transmits amplified sound to speakers placed strategically around the classroom

Selected Vocabulary - continued

frequency - the number of times a sound wave vibrates in a second, measured in hertz.

hard of hearing - those people who, usually, with the use of a hearing aid have sufficient residual hearing to process linguistic information auditorally

hertz/Hz - a unit of measurement which describes the pitch of a sound. The number of hertz corresponds to the number of vibrations per second

interpreter - a person who facilitates communication between the deaf or hard of hearing student and hearing peers, service providers and teachers. The communication mode (ASL, Manually Coded English, or Oral) must support the student's learning program.

Manually Coded English (MCE) - an umbrella term that refers to all English-based sign systems. ASL features and finger spelling are incorporated into signs that follow English syntax and grammar to try to present a more conceptually accurate message.

Message Relay Center (MRC) - a service provided by B.C. Tel to relay telephone messages from a telephone user to a TTY user (consult the telephone directory)

residual hearing - hearing which remains after a person has experienced a hearing loss

sensori-neural hearing loss - often referred to as nerve deafness, which cannot be cured by medical treatment

Signed English - a system of gestures and signs that follows English syntax and grammar

speech range/zone - the range of spoken language that can be heard by the human ear, occurring between the frequencies of 250 Hz to 4000 Hz (refer to audiograms on page 4)

speech reading - the use of lip movements, facial expressions, and body language to determine the speaker's meaning

TTY/TDD - (teletypewriter) - telephone device for the deaf

Notes

Resources

Your work with students who are deaf or hard of hearing may lead to further questions and a desire for more information. Persons knowledgeable about hearing loss will be able to provide you with current research and literature for your interest, and lists of learning resources to support your student's learning.

Date _____

District Personnel

Teacher of the Deaf: _____ Phone: _____

District Administrator: _____ Phone: _____

Other Specialists: _____ Phone: _____

_____ Phone: _____

Health Unit Personnel

Audiologist: _____ Phone: _____

Technician: _____ Phone: _____

Outreach

Outreach Consultant
Provincial School for the Deaf, Jericho Program
5455 Rumble Street
Burnaby, British Columbia
V5J 2B7
Telephone: 664-8560
Facsimile: 664-8561
TTY: 664-8562

Ministry of Education

Coordinator of Services for the Deaf and Hard of Hearing
Special Education Branch
Parliament Buildings
Victoria, British Columbia
V8V 1X4
Telephone: 356-2333
Facsimile: 356-7631
TTY: 356-7632

MR — 164

Queen's Printer for British Columbia©
Victoria, 1994